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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/659,831	09/10/2003	Peter J. Black	990486D1	5958
23596 7590 07/10/2008 QUALCOMM INCORPORATED 5775 MOREHOUSE DR. SAN DIEGO, CA 92121				
EXAMINER				
TSEGAYE, SABA				
ART UNIT		PAPER NUMBER		
2619				
NOTIFICATION DATE		DELIVERY MODE		
07/10/2008		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/659,831

Applicant(s)

BLACK ET AL.

Examiner

SABA TSEGAYE

Art Unit

2619

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 April 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 5, 6 and 12-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5, 6 and 12-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/5508)
- Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. This Office Action is in response to the amendment filed 04/09/08. Claims 1-3, 5, 6, and 12-17 are pending. Currently no claims are in condition for allowance.

Claim Rejections - 35 USC § 103

2. Claims 1-3, 5, 6, and 12-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yang et al. (US 6,731,674 B1) in view of McDonough (US 6, 452,959).

Regarding claims 1, 12 and 15, Yang discloses, in Fig. 14, an apparatus, comprising:

a first device to transmit a first frequency (see fig. 12; 1st channel signal);

a first PN generator to generate a first PN sequence at a first offset (1217);

a first spreader to receive and spread a first pilot data with the first PN sequence (1411, 1423);

a second device to transmit at a second frequency (fig. 12; 2nd channel signal);

a second PN generator to generate a second PN sequence at a second offset (1217); and

a second spreader to receive and spread a second pilot data with the second PN sequence (1411, 1425).

Yang does not disclose that the first PN sequence is generated from equations different from equations used to generate the second PN sequence.

McDonough teaches that a first PN sequence is generated based on a first polynomial and a second PN sequence is generated based on a second polynomial (column 12, line 65-column 13, line 7).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ different equation, such as that suggested by McDonough, in the system of Yang in order provide methods and devices to simplify data generators and system circuitry operating in connection with the same (column 5, lines 5-7).

Regarding claim 2, Yang discloses the apparatus wherein the first frequency uses is different CDMA format than the second frequency (column 17, lines 48-56).

Regarding claim 3, Yang discloses device and method for generating PN sequence associated with IS-95A/IS-95B and future CDMA system that sports the variable data rate. Further, Yang discloses a channel transmitter for spreading channel signals using quasi-orthogonal codes and Walsh orthogonal codes in a CDMA communication system.

Regarding claims 5, 6, 13, 14, 16 and 17, Yang discloses a CDMA mobile communication system in IS-95A/IS-95B standards. According to IS-95 standards, the short code I-sequence is associated $P_{1,2} = x^{15} + x^{13} + x^9 + x^8 + x^7 + x^5 + 1$ and Q-sequence is associated with the polynomial $P_{Q,1} = X^{15} + x^{12} + x^{11} + x^{10} + x^6 + x^5 + x^4 + x^3 + 1$. Further, McDonough teaches these limitations; see column 13, lines 1-44.

Response to Arguments

3. Applicant's arguments with respect to claims 1-3, 5, 6 and 12-17 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SABA TSEGAYE whose telephone number is (571)272-3091. The examiner can normally be reached on Monday-Friday (7:30-5:00), First Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wing Chan can be reached on (571) 272-7493. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2619

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Saba Tsegaye/
Examiner, Art Unit 2619
June 25, 2008

/Gregory B Sefcheck/
Examiner, Art Unit 2619
7-3-2008